No. 71110

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

R.J. Reynolds Tobacco Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *seventeen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEANUT

'Avoca-11'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington *this* 27th *day of* October *in the year of our Lord one thousand nine hundred and* seventy-six

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470
(2-12-71)

UNITED STATES DEPARTMENT OF AGRICULTURE
CONSUMER AND MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1. VARIETY NAME OR TEMPORARY DESIGNATION	2. KIND NAME	FOR OFFICIAL USE ONLY
Avoca-11	~~Virginia~~ Bunch ~~Type~~ Peanut	PVPO NUMBER 7110
3. GENUS AND SPECIES NAME	4. FAMILY NAME *(Botanical)*	FILING DATE 6/21/71 / TIME 9:00 A.M.
Arachis Hypogaea	Leguminosae	
	5. DATE OF DETERMINATION NOVEMBER 1968 3/12/75 DJH	FEE RECEIVED $ 750.00 / CHARGES
6. NAME OF APPLICANT(S)	7. ADDRESS *(Street and No. or R.F.D.No., City, State, and ZIP Code)*	8. TELEPHONE AREA CODE AND NUMBER
R. J. Reynolds Tobacco Company	Winston-Salem, North Carolina 27102	919-761-2996 748-2996

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)*	10. STATE OF INCORPORATION	11. DATE OF INCORPORATION
Corporation	New Jersey	April 4, 1899

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

Herbert J. Bluhm
4101 Tangle Lane
Winston-Salem, North Carolina 27106

13. **CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:**

- [✓] 12A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52, P.L. 91-577)*
- [✓] 12B. Exhibit B, Botanical Description of the Variety — Exhibits Attached
- [✓] 12C. Exhibit C, Objective Description of the Variety
- [✓] 12D. Exhibit D, Data Indicative of Novelty
- [✓] 12E. Exhibit E, Statement of the Basis of Applicant's Ownership

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable. *(See Section 52, P.L. 91-577).*

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? *(See Section 83(a), P.L. 91-577) (If "Yes," answer 14B and 14C below.)* [X] YES [ ] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations?	14C. If "Yes," to 14B, how many generations of production beyond breeder seed?
[X] YES [ ] NO	Three - Foundation seed; registered seed; certified seed

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is distinct, uniform, and stable as required in Section 41 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act (P.L. 91-577).

June 14 1971
(DATE)

R. J. REYNOLDS TOBACCO COMPANY
Vice President
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $50.00 fee to U.S. Dept. of Agriculture, Consumer and Marketing Service, Grain Division, Hyattsville, Maryland 20782. Retain one copy for your files. All items on the face of the form are self-explanatory unles noted below.

ITEM

5 Insert the date the applicant determined that he had a new variety.

12a First, give the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. Second, give the details of subsequent stages of selection and multiplication. Third, indicate the type and frequency of variants during reproduction and multiplication and state how these variants may be identified. Fourth, provide evidence on stability.

12b First, give any special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage. Second, describe the mature plant and compare it with a similar commercial variety grown under the same conditions, and indicate the differences.

12c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

12d Provide complete data indicative of novelty. Seed and plant specimens may be submitted and seeds submitted may be sterile. Where possible, include photographs of plant comparisons, chemical tests, etc.

12e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

R. J. REYNOLDS TOBACCO COMPANY
AVOCA DIVISION
MERRY HILL, NORTH CAROLINA

EXHIBIT A - ORIGIN OF VARIETY AVOCA-11 PEANUT

The variety was selected from the Virginia Bunch type NC-2 peanut. In 1967 approximately 800 individual plants were selected from 125 acres of NC-2 peanuts. These 800 plants were further evaluated and reduced down to the ten most outstanding plants based on the following criteria:

1 - Uniform size peanuts from the tap root to the outside peanuts and larger number of fancy and extra large kernels

2 - Stem quality - Holding strength

3 - Freedom from disease

4 - Hull quality - Freedom from cracks and blemishes

5 - Yield per acre

Seed from the ten plants selected were space planted in 1968. During the growing the plots were periodically checked and off-type plants were removed. In the fall of 1968 each plant was harvested and carefully evaluated using the same criteria used in 1967. The most outstanding plants were carried forward and space planted again in 1969. The remainder of the seed was planted as a seed increase for field planting. This procedure has been continued each year. letter 3/12/75 VARIANTS DO NOT OCCUR TO ANY SIGNIFICANT EXTENT.

R. J. REYNOLDS TOBACCO COMPANY
AVOCA DIVISION
MERRY HILL, NORTH CAROLINA

EXHIBIT B — AVOCA-11 PEANUT

The variety is a typical Virginia Bunch Type Peanut. Its branches grow upright during the growing period. There is some lowering of the side branches late in the season as the peanuts mature. The variety grows off rapidly during the early season and can be easily identified from other varieties in a test area. Its vigorous growth gives it a larger bush and longer stem than the NC-2 variety. It also carries some tolerance to stem rot and pod rot.

It matures about 7 to 10 days later than the NC-2 variety and produces 15% to 20% more fancy peanuts and about 10% more extra large kernels.

R.J.Reynolds Industries, Inc.
Winston-Salem, N. C. 27102

Herbert J. Bluhm
Patent Advisor
(919) 748-2996

RJR

July 23, 1976

Mr. Joseph J. Higgins
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service
6525 Belcrest Road
Hyattsville, Maryland 20782

Re: Application No. 71110, Peanut, 'Avoca-11'

Dear Mr. Higgins:

I refer to your letter of June 15, 1976 in which you indicate that novelty for the 'Avoca-11' peanut variety could be established by demonstrating one significant difference between 'Avoca-11' and 'NC-2'. I also refer to my telephone inquiry on July 9 suggesting that the significant difference between these two varieties for purposes of establishing novelty be based on the larger percentage of fancy size peanuts produced by the 'Avoca-11'. Your response to my inquiry indicated that such a difference would probably be unacceptable for establishing novelty for 'Avoca-11'. I have again reviewed the supporting data and have concluded that the difference is statistically significant and should, therefore, be acceptable for novelty purposes.

Enclosed are copies of Tables 14 and 15 taken from the 1971 Peanut Variety and Quality Evaluation Results published by the Tidewater Research Station. Table 14 shows that the average of the two diggings resulted in 56% fancy size for NC-2 and 83% fancy size for Avoca-11 or a difference of 27%. The two year average is presented in Table 15 and shows an average of 49.5% fancy size for NC-2 vs. 78.5% fancy size for Avoca-11 or a difference of 29%. It should be noted that evaluations were made at six different locations for each of the years 1970 and 1971. While the actual percentage of fancy size nuts varies from one location to another and is also influenced by growing conditions, the 'Avoca-11' has consistently produced a higher proportion of fancy size peanuts when compared with NC-2. During the two year testing period at the six locations the smallest difference occurred in 1971 in Halifax County, N.C. when the 'Avoca-11' produced 93.5% fancy size vs. 77.5% for 'NC-2' or a difference of 16%. The greatest difference observed was 36.5% which occurred in 1970 in Martin County, N.C. and again in 1971 in Nansemond County, Virginia. Data extracted from the 1970 and 1971 reports by the Tidewater Research Station are shown on the enclosed tabulation.

R.J. Reynolds Industries, Inc.
Winston-Salem, N. C. 27102

Based on the foregoing comments, we propose to amend the novelty statement so that it reads:

> 'Avoca-11' most closely resembles the 'NC-2' except that it is more erect and produces from 15 to 35 percent more fancy size nuts than the NC-2.

The above novelty statement finds firm support in the data obtained by the Tidewater Research Station and avoids reciting the approximate percentage of fancy size nuts produced. In regard to this latter point you had questioned (see your letter dated May 17, 1976) the percent fancy size (86%) given for the 'Avoca-11' in comparison with a 60% figure listed in Exhibit C. This can be explained by noting that the 60 percent figure is based on a random selection of only 20 pods derived from a single location. The percentage given in the Tidewater Research Station reports is based on a larger sample and clearly shows that the figure varies considerably depending on location and growing conditions. For example, 'Avoca-11' produced 64.5% fancy size in 1970 and 83% fancy size in 1971 at the Southampton County, Va. location. It is apparent that the 60% figure given in Exhibit C is not inconsistent with the 64.5% figure based on results in Southampton County in 1970. The variation in the percentage of fancy size nuts that is reflected in the enclosed data does suggest, however, that a value based on measurements of 20 pods only is somewhat unrealistic and that a more accurate figure would be obtained by averaging values based on several locations. Your comments on possibly amending Exhibit C in light of the enclosed data would be appreciated.

Please note that the novelty statement as revised reflects the difference in the percentage of fancy size nuts produced. We assume that this is the preferred way to express such a difference, particularly in view of the statement in your June 15 letter suggesting the possibility of demonstrating a difference in oil percent of the seeds.

In summary, we firmly believe that the significant difference now recited in the novelty statement is fully supported by the data presented and that such difference is sufficient to warrant issuance of a certificate of protection immediately. If for some reason this difference is not regarded as sufficient to establish novelty, we would appreciate receiving your specific comments as to why the difference is insufficient. We would also then solicit your suggestions as to the specific characteristics which the Plant Variety Protection Office regards as suitable for establishing novelty. Your prompt attention to this matter would be appreciated.

Yours very truly,

Herbert J. Bluhm

Herbert J. Bluhm

HJB:lpw

Enclosures

Table 15. Two Year Average - Six Locations in 1970 and 1971.

Variety or Line	% LSK	% FM	% Fancy	% Moisture	% ELK	% SS	% OK	% DK	% SMK	% Meat	Support Price Dols/cwt.	Yield lbs/A.	Value Dols/A.
						DIGGING I							
Bunch Types													
NC 2	2.8	2.5	50	6.61	26	2.0	2.6	1.8	68	74	$13.52	3476	$458
Avoca 11	3.4	2.5	78	6.66	34	1.7	2.0	1.6	68	72	13.76	3654	488
Runner Types													
Florigiant	1.3	1.7	76	6.58	31	1.3	2.4	1.0	69	74	14.06	4004	552
Va. 56R	1.6	3.2	75	6.64	28	1.1	3.0	1.7	67	73	13.45	3344	436
						DIGGING II							
Bunch Types													
NC 2	4.6	1.8	49	6.41	32	3.0	1.2	1.8	71	77	14.26	3232	450
Avoca 11	5.0	2.4	79	6.36	41	2.6	1.2	2.4	70	76	14.12	3360	458
Runner Types													
Florigiant	2.1	1.3	74	6.48	34	2.6	1.0	0.8	72	76	14.81	3470	501
Va. 56R	3.4	3.4	68	6.65	32	1.3	2.2	1.6	70	75	14.02	2578	346

Table 16. Three Year Average - Six Locations in 1969, 1970 and 1971.

Variety or Line	% LSK	% FM	% Fancy	% Moisture	% ELK	% SS	% OK	% DK	% SMK	% Meat	Support Price Dols/cwt.	Yield lbs/A.	Value Dols/A.
						DIGGING I							
Runner Types													
Florigiant	1.2	1.5	76	6.54	28	1.7	2.6	-	69	74	$13.80	3916	$531
Va. 56R	1.7	2.9	75	6.63	26	1.3	3.2	-	68	73	13.36	3267	422
						DIGGING II							
Florigiant	1.6	1.3	73	6.46	30	2.8	1.3	-	72	76	14.48	3316	470
Va. 56R	2.6	3.0	69	6.68	30	1.5	2.2	-	70	75	13.95	2580	346

6/25/75

Table 23. Comparison of southern stem rot resistance for 11 Virginia-type cultivars, Hoggard Farm, Bertie County, N. C.

Entry	Identity	% Infected plants	% Diseased pods
1	NC 2	50.0	19.3
2	NC 4	45.0	27.0
3	NC 5	70.0	31.0
4	Florigiant	71.7	37.7
5	NC 17	50.0	11.0
6	NC-Fla 14	58.3	31.0
7	Va 72R	41.7	24.3
8	Florunner	70.0	31.7
9	Va 70 Composite	70.0	41.7
10	Avoca 11	13.0	4.3
11	Shulamit	63.3	43.3
	LSD (.05)	NS	NS
	CV (%)	45.0	63.0

Table 14. Performance of lines averaged across six locations, 1971.

Variety or Line	% LSK	% FM	% Fancy	% Moisture	% ELK	% SS	% OK	% DK	% SMK	% Meat	Support Price Dols/cwt.	Yield[4] lbs/A	Value Dols/A
						DIGGING I[1]							
Bunch Lines													
NC 2	3.4a[2]	1.7b	58e	7.81b	33d	2.5bc	1.6bc	2.5ab	69bc	76b	$14.17cd	3598d	$496d
Avoca 11	3.6a	1.7b	83bc	8.11ab	40b	1.6de	1.8bc	2.2abc	69bc	74de	14.37bcd	3783c	528d
Va. 70 Composite	1.8cd	0.9c	81cd	7.83b	44a	3.1a	1.6bc	1.8c	69bc	75b	14.82ab	3980b	580abc
Va. 68 Composite	1.8cd	1.8b	88a	8.38a	41b	2.1cd	1.6bc	2.8a	65d	72f	13.37e	3966b	526d
NC Acc. 15753	2.5b	1.3bc	80d	8.09ab	43a	2.9ab	1.6bc	2.0bc	69bc	75bc	14.61abc	3961b	570bc
NC Acc. 15754	1.7cd	1.3bc	80cd	7.89ab	45a	2.9ab	1.4c	2.1bc	69bc	75b	14.71abc	3962b	574bc
NC Acc. 15755	1.6cd	1.5b	82bcd	7.93ab	45a	2.9ab	1.4c	2.5ab	69bc	75b	14.46abcd	3956b	564c
Runner Lines													
Florigiant	1.3d	1.3bc	84b	7.79b	37c	1.4ef	2.0b	1.2d	70b	74cd	14.67abc	4149a	599ab
Va. 56R	1.8cd	2.7a	79d	8.05ab	33d	1.2ef	2.9a	2.1bc	68c	74e	13.97d	3271e	444e
Florunner	2.2bc	0.9c	15f	7.63b	25e	1.0f	1.7bc	0.6d	77a	80a	14.97a	4167a	612a
CV (%)	38	47	5	8	8	36	36	44	3	1	5	6	9
						DIGGING II[3]							
Bunch Lines													
NC 2	4.3a	1.6cd	54g	7.34ab	35de	2.9c	1.2cd	2.1bc	71bc	77b	14.61bcd	2841bc	407cd
Avoca 11	4.9a	2.3b	83ab	7.08bc	44b	2.2d	1.0de	2.7ab	70d	76e	14.44cd	2974bc	415cd
Va. 70 Composite	2.2c	1.6cd	79c	7.28ab	46a	3.7a	1.1cd	1.9c	70d	77cd	15.09ab	2950bc	436bc
Va. 68 Composite	2.5c	2.1bc	83a	7.34ab	40c	2.4d	1.7b	3.1a	66e	74g	13.45e	2955bc	394d
NC Acc. 15753	2.7c	1.3de	75e	7.17bc	44ab	3.0bc	1.2cd	2.0bc	70d	76de	14.94ab	2905bc	424bcd
NC Acc. 15754	2.2c	1.6cd	78cd	7.11bc	45ab	3.5ab	1.2cd	2.1bc	70cd	77bc	15.06ab	2922bc	429bcd
NC Acc. 15755	2.4c	1.7cd	77de	6.95c	44ab	3.4abc	1.4c	2.3bc	69d	77cd	14.85abc	2810c	408cd
Runner Lines													
Florigiant	1.9c	1.2de	81b	7.29ab	36d	2.4d	1.2cd	1.0d	72b	76de	15.12a	3048b	451b
Va. 56R	3.5b	3.8a	71f	7.49a	34e	1.3e	2.5a	1.9c	69d	75f	14.23d	2182d	296e
Florunner	2.3c	0.9e	13h	7.27ab	27f	2.2d	0.8e	0.6d	78a	81a	15.30a	3648a	547a
CV (%)	36	41	4	5	8	29	31	45	2	1	5	10	11

1/ Dug when early entries were at their optimum maturity.
2/ Duncan's New Multiple Range Test at the .05 level. Means are comparable only within the same digging date and means sharing the same subscript are not statistically different.
3/ Dug when late entries were at their optimum maturity.
4/ All yields adjusted to a standard 8% moisture.

DATA EXTRACTED FROM REPORTS BY TIDEWATER RESEARCH STATION

Location	Digging	1970 Results				1971 Results			
		NC-2		Avoca-11		NC-2		Avoca-11	
		% Fancy	Ave.	% Fancy	Ave.	% Fancy	Ave.	% Fancy	Ave.
Martin Co., N.C.	1	45	47	78	83.5	55	56	85	85.5
	2	49		89		57		86	
Chowan Co., N.C.	1	44	38.5	76	71.5	63	63.5	89	90.5
	2	33		67		64		92	
Halifax Co., N.C.	1	49	50.5	77	79	80	77.5	94	93.5
	2	52		81		75		93	
Southampton Co., Va.	1	35	33.5	64	64.5	64	59.5	84	83
	2	32		65		55		82	
Nansemond Co., Va.	1	40	44	75	76.5	38	34	71	70.5
	2	48		78		30		70	
Surry Co., Va.	1	41	46	75	80	49	45.5	75	75
	2	51		85		42		75	

PEANUT VARIETY DEMONSTRATION

CONDUCTED IN 1970 BY

NORTH CAROLINA AGRICULTURAL EXTENSION SERVICE

County & Variety	Yield per Acre	Percentage Sound Mature Kernels	Percentage Fancy Size
Northampton			
a. NC-2	3778	72	55
b. Avoca-11	3665	69	77
Hertford			
a. NC-2	4462	74	54
b. Avoca-11	4270	74	87
Halifax			
a. NC-2	3431	72	59
b. Avoca-11	3291	73	94
Martin			
a. NC-2	3695	72	65
b. Avoca-11	3731	73	88
Bertie			
a. NC-2	4042	75	40
b. Avoca-11	3947	75	86
Average for 5 counties:			
a. NC-2	3882	73	55
b. Avoca-11	3781	73	86

FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-29
(6-17-74)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

OBJECTIVE DESCRIPTION OF VARIETY
PEANUT (Arachis hypogaea)

NAME OF APPLICANT(S)
R. J. REYNOLDS TOBACCO COMPANY

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)
Winston-Salem, North Carolina 27102

VARIETY NAME OR TEMPORARY DESIGNATION
Avoca-11

FOR OFFICIAL USE ONLY
PVPO NUMBER
7110

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. BOTANICAL TYPE:

[1] Flowering on the Main Stem: 1 = ABSENT 2 = PRESENT

[1] Branching Pattern: 1 = ALTERNATE – Pairs of vegetative & reproductive branches (Virginia) 3 = OTHER (*Specify*) _____
2 = SEQUENTIAL – Continuous reproductive branches (Valencia--Spanish) _____

2. PLANT:

[4] Habit: 1 = PROSTRATE (*Florunner*) 2 = DECUMBENT (*NC–5*) 3 = SEMI-ERECT (*Florispan*) 4 = ERECT (*Starr*)

[2] Branching: 1 = SPARSE (*Valencia*) 2 = MODERATE (*Starr*) 3 = PROFUSE (*Florunner*)

3. MATURITY:

[1] Region: 1=VIRGINIA, NORTH CAROLINA 2 = S.E. UNITED STATES 3=S.W.UNITED STATES 4=OTHER

[1][4][5] NUMBER OF DAYS TO MATURITY

[1][0] NO. OF DAYS EARLIER THAN . . . . . [6]

[1][0] NO. OF DAYS LATER THAN . . . . . [8]

[6] / [8]: 1 = STARR 2 = FLORUNNER 3 = FLORIGIANT 4 = VIRGINIA 61R 5 = NC - 2 6 = NC - 5 7 = SOUTHEASTERN RUNNER 56-15 8 = OTHER (*Specify*) NC-17

4. LEAVES:

[1] COLOR AT 60 DAYS:(*Nickerson Color Designation*): 1 = LIGHT GREEN (10GY 6/9) 2 = MEDIUM GREEN (2.5G 5/9) 3 = DARK GREEN (5G 4/7) 4 = OTHER (*Specify*) _____

[4][4] MM. LEAFLET LENGTH (*Basal leaflet of the youngest fully opened leaf*)

[0][0][2] LEAFLET LENGTH/WIDTH RATIO

5. POD: (Average for 20 pods at maturity)

[3][8] MM. LENGTH

[1][9] MM. DIAMETER

[3][3][6][3] KG./HA. POD YIELD

[0][1][0] % LESS THAN . . . . . [3]

[0][1][5] % MORE THAN . . . . . [8]

[3] / [8]: 1 = STARR 2 = FLORUNNER 3 = FLORIGIANT 4 = VIRGINIA 61R 5 = NC - 2 6 = NC - 5 7 = SOUTHEASTERN RUNNER 56-15 8 = OTHER (*Specify*) NC-17

[6][0] % FANCY SIZE: (*% riding 13.46 mm., 34/64 inch, spacing set on presizer roller*)

5. POD (Average for 20 pods at maturity):

[2] NUMBER OF SEEDS PER POD: 1 = 1 2 = 2 3 = 3 4 = 3–4 5 = 2–3–4

[2] CONSTRICTION: 1 = SHALLOW OR NONE (*Virginia 56R, Argentine*) 2 = MEDIUM (*Virginia 61R*) 3 = DEEP (*Starr*)

[1] SURFACE: 1 = GLABROUS (*Florunner*) 2 = PUBESCENT (*Florispan*)

[2] BEAK: 1 = ABSENT 2 = INCONSPICUOUS 3 = PRONOUNCED

6. SEED (Mature, cured but not aged):

[0 5] COAT COLOR: 1 = WHITE (*Pearl*) 2 = CREAM 3 = TAN (*Starr*) 4 = BROWN 5 = PINK (*Florigiant*) 6 = RED 7 = PURPLE 8 = DARK PURPLE 9 = VARIGATED 10 = OTHER (*Specify*) _____

[1] COAT SURFACE: 1 = SMOOTH 2 = INDENTED [1] 1 = UNIFORM COLOR 2 = BLEMISHED

[5] SHAPE: 1 = SPHERIODAL (*Starr*) 2 = SHORT-BROAD (*Florunner*) 3 = ELONGATED-SLENDER (*Dixie Runner*) 4 = CYLINDRICAL-TAPERED ENDS 5 = CYLINDRICAL-BLUNT ENDS (*NC–2*) 6 = OTHER (*Specify*) _____

99 per letter 4/21/76

[1 9] MM. LENGTH [1 0] MM. WIDTH [~~4 0~~] GRAMS PER 100 SEED (*8% Moisture*)

7. DISEASE RESISTANCE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[0]	SOUTHERN STEM ROT	[1]	RUST
[2]	EARLY LEAF SPOT	[0]	VIRUS X
[2]	SOUTHERN LEAF SPOT	[0]	MOSAIC
[1]	POD ROT COMPLEX	[ ]	OTHER (*Specify*) _____

8. INSECT RESISTANCE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[1]	THRIPS	[1]	BURROWING BUG
[1]	LEAF HOPPER	[1]	NEMATODE (*Specify species*)
[1]	SOUTHERN CORN ROOTWORM	[0]	LESSER CORNSTALK BORER
[1]	APHID	[ ]	OTHER (*Specify*) Niacin

9. COMPARISON OF SUBMITTED VARIETY WITH ONE OR MORE SIMILAR VARIETIES:

VARIETY	OIL* (%)	PROTEIN* (%)	OLEIC: * LINOLEIC ACID RATIO	IODINE* NUMBER	SHELLING (%)	SMK** (%)	ELK+ (%)	MAIN HEIG (CM
SUBMITTED	47.1	30.9		96	75	70	44	50
SIMILAR	49.8	28.8		96.7	75	71	35	45
NAME OF SIMILAR VARIETY	NC–2	NC–2		NC–2	NC–2	NC–2	NC–2	NC–

* *From Sound Mature Kernels* ** Sound Mature Kernels + Extra Large Kernels

RECEIVED MAR 17 1975 U.S. DEPARTMENT OF AGRICULTURE

10. INDICATE A VARIETY WHICH MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	VARIETY	CHARACTER	VARIETY
POD COLOR	NC–2	SEEDLING VIGOR	NC–17
SEED DORMANCY	NC–17	HULL THICKNESS	NC–15
SEED SIZE	NC–17	LEAF COLOR	NC–2

11. COMMENTS (Additional description or clarification — Such as: Relative disease reactions may be compared with standard varieties)

Stems and leaves are large. An erect growth with stems that hold the peanut also large. These stems are believed to be larger than for other Virginia Bunch Peanuts.

6/25/75

Table 24. Comparison of pod rot resistance of 26 peanut cultivars, Rose Farm, Northampton County, N. C.

Entry	Ac no.	Identity	% diseased pods
1	323	NC 2	3.7
2	324	NC 4	0.7
3	333	NC 5	1.0
4	348	Florigiant	2.3
5	15717	NC 17	0.3
6	15714	NC-Fla 14	0.0
7	15905	Va 72R	1.3
8	15973	Florunner	1.0
9	15975	Va 70 Composite	14.0
10	17087	Avoca 11	0.7
11	17088	Shulamit	21.0
12	17188	Golden I	0.3
13		NC 5 x Ac 6339	4.7
14		NC 5 x Ac 7484	15.0
15		Florigiant x Ac 6333	4.0
16		Florigiant x Ac 7484	1.0
17		Va 61R x NC 5	12.3
18		Florigiant x NC 5	18.7
19		NC 2 x NC 5	1.0
20		NC 5 x Ac 9088	3.7
21		NC 5 x Fla 393	1.0
22	3033	Ga 207-7 x A48	2.0
23	3284	(547 x 549) x Ga 207-7	2.0
24	3196	(547 x 549) x A48	20.0
25	10450a	F_3 4507 x F_3 4508	0.7
26	10448b	F_3 4507 x F_3 4508	0.3
	LSD (.05)		NS
	CV (%)		227.0

R. J. REYNOLDS TOBACCO COMPANY

AVOCA DIVISION

MERRY HILL, NORTH CAROLINA

SCHEDULE E AVOCA-11 PEANUT

This variety was developed at the Avoca Division operated by R. J. Reynolds Tobacco Company in Bertie County, North Carolina. The owner of 'Avoca-11' is R. J. Reynolds Tobacco Company, 403 N. Main Street, Winston-Salem, N. C. 27102.

Mr. Blum 10/18 -

October 15, 1976

We should Issue Certificate ? JH 10/16

~~From~~ J. J. Higgins - What is your decision

BR 10/18 Coa

Subject. Avoca-11 Peanut - Indented vs Smooth Seed

In response to my letter to Mr. Blum, representing Reynolds Tobacco he called 10/5/76, he called to tell me that their breeder, Dr. Stoffler had spoken to Dr J. C. Wynne at Raleigh. I called Dr Wynne today and he stated this characteristic is greatly influenced by maturity stage of seed at harvest time - and occurrs in the Virginia type peanuts which have an indeterminate flowering fruiting growth pattern. Soil can be a factor: on Sandy Soil no indentations occur but ~~they are~~ heavy ~~on the~~ soils they are abundant.

He said that genetics can control the condition and only some breed lines have this character - since the lines are so poor they are never released as varieties.

Wynne assured me that Avoca-11 peanut blemishes were related to maturity or harvest (late harvest produces 50/50 % Indented and Smooth seed coats) and not to genetic make up since it was selected from NC-2.

OK to assemble ~~request certificate fee~~ ~~&~~ certificate BR 10/20/76